

GOLF CLUB GRIP

The present invention relates to a grip for a golf club and in particular, but not exclusively, for a putter. The invention also relates to a golf club that includes the grip.

- 5 Most modern putters are fitted with a grip that is made from a rubber or latex material and is typically approximately 10" (260mm) long and tapers from a width of 0.8" (20mm) and a depth of 1" (25mm) at its upper end to a width of 0.6" (15mm) and a depth of 0.6"(15mm) at its lower end. The grip is hollow, allowing it to be fitted over the steel shaft of a golf club.
- 10 The putter is normally held with one hand slightly above the other and the thumbs on top of the grip, with the fingers underneath. The hands may be partially overlapping. With an orthodox grip, a right-handed player will place the left hand towards the upper end of the grip, and right hand below. Alternatively, a reverse grip may be adopted with the positions of the hands reversed. In either case, because the hands are at different heights, the player's
- 15 shoulders will not be level when addressing the ball. This can make it more difficult to strike the ball in the intended direction.

- This problem has been addressed by US 4,067,573 which provides a golf putter grip arranged such that the hands can be placed level with one another, with the two thumbs side-by-side on top of the grip. This allows the player to address the ball with the shoulders level, which may result in an improved putting stroke. However, the shape of the grip is very unusual to golfers and it has not proved popular. It has also been found that the rounded shape of the club tends to cause the golfer to swing the club along a curved path which is detrimental to the accuracy of the shot played.

- Another disadvantage of most existing putter grips is that the length of the grip cannot be adjusted. If a golfer wants to adjust the length of a club he removes the grip and trims the length of the shaft and reapplies the grip.

According to a first aspect of the invention, there is provided a grip for a golf club, the grip including a wide portion of substantially uniform, substantially rectangular cross-section, said wide portion having a front face, a rear face and two side faces, wherein the wide

portion is of sufficient width to allow the club to be gripped by a golfer with both hands at the same height and both thumbs side-by-side on the front face of the wide portion, and the width to depth ratio of the wide portion is in the range 1.3 to 2.0 : 1.

The width to depth ratio is the ratio of the maximum width between the two side faces to 5 the maximum depth between the front and rear faces of the wide portion. It has been found that this grip shape is easier for golfers to use and has the effect that some golfers swing the golf club more squarely which consequently leads to improved putting performance.

Preferably the front face is convex, the rear face and side faces are substantially planar, and the side faces are arranged substantially perpendicular to the rear face.

- 10 According to a second aspect of the invention there is provided a grip for a golf club, the grip including a wide portion of substantially uniform, substantially rectangular cross-section, said wide portion having a front face, a rear face and two side faces, wherein the wide portion is of sufficient width to allow the club to be gripped by a golfer with both hands at the same height and both thumbs side-by-side on the front face of the wide portion, 15 and wherein the front surface is convex, the rear face and side faces are substantially planar, and the side faces are arranged substantially perpendicular to the rear face.

Preferably the width to depth ratio of the grip is in the range 1.3 to 2.0 : 1.

The following paragraphs describe features of the invention that are applicable to the first and second aspects of the invention.

- 20 The width to depth ratio is preferably in the range 1.4 to 1.8 : 1, and more preferably in the range 1.4 to 1.6 : 1, and more preferably still is approximately 1.5 : 1. It has been found that grips having width to depth ratios in these narrower ranges are the most comfortable for golfers to use.

Preferably the wide portion of the grip has a width at the widest point thereof in the range 25 30-60mm, and more preferably in the range 40-50mm. The wide portion may have a length in the range 150-300mm, and is preferably in the range 180-250mm. The overall length of the grip may be in the range 200-400mm, and is preferably in the range 250-300mm

The front face can be arcuate, having a radius of curvature in the range 50-65mm. This provides a more comfortable grip for the golfer since the hands are turned slightly outwards

which provides a more natural and less strained grip. Preferably the intersections of the front face and the rear face with each side face are preferably rounded. The rounded edges provide a more comfortable grip for the golfer.

Advantageously the grip may include a tapered portion at its lower end.

- 5 The grip may include an elongate body member and a separate end cap for attachment to the upper end of the body member. This enables the length of the grip to be trimmed to the correct length to suit a user. The end cap is reattached to the grip after the trimming operation so that the aesthetic appearance of the grip is not spoilt. Preferably the end cap includes locating formations for engagement with the body member, for example the end
- 10 cap may include lugs for engagement with elongate bores in the body member. The bores may extend along a substantial part of the length of the grip, for example the bores may extend along substantially the full length of the wide portion, and preferably extend along 20-90% of the length of the wide portion.

According to a third aspect of the invention there is provided a grip for a golf club, wherein
15 the grip includes an elongate body member and a separate end cap for attachment to the upper end of the body member. This enables the length of the grip to be trimmed to the correct length to suit a user. The end cap is reattached to the grip after the trimming operation so that the aesthetic appearance of the grip is not spoilt.

- Preferably the body member has a portion of uniform cross-section at its upper end.
- 20 Advantageously the end cap includes locating formations for engagement with the body member, for example the end cap includes lugs for engagement with elongate bores in the body member. Preferably the elongate bores extend along a substantial part of the length of the grip, and more preferably at least 20% percent of the length of the grip. For example, the elongate bores may extend along 25 to 90% of the length of the grip, and preferably
 - 25 between 30% to 80% of the length of the grip.

The grips described above can be applied to any type of golf club, but are most applicable to golf putters.

According to a fourth aspect of the invention there is provided a method of adjusting the length of a golf club grip, wherein the grip includes a body member and a separate end cap

attached thereto, said method including detaching the separate end cap from the body member, removing part of the body member, and reattaching the separate end cap to the remainder of the body member. This is a more satisfactory method of reducing the length of a golf club than by reducing the length of the shaft.

- 5 The end cap is applied to an upper end of the body member and the grip is trimmed such that material is removed from the upper end. The end cap is reattached to the upper end of the body member.

The method may include using a body member having elongate bores formed in the body member and a separate end cap that includes formations for engaging the elongate bores.

- 10 The method may be applied to any configuration of the grip as described above.

An embodiment of the invention will be now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is an isometric view of a golf club grip;

Figure 2 is an end view of the lower end of the grip;

- 15 Figure 3 is a side view of the grip;

Figure 4 is an end view of the upper end of the grip;

Figure 5 is a front view of the grip;

Figure 6 is a front view of the main body member of the grip, showing its internal structure;

Figure 7 is a side view of the body member, showing its internal structure;

- 20 Figure 8 is an end view of the upper end of the body member; and

Figure 9 is an isometric view of the end cap.

The grip is made of a suitable elastomeric or resilient material such as rubber, latex or a plastics material and includes an elongate body member 2 that fits over the shaft of the golf club (not shown) and an end cap 4, which is subsequently attached to the upper end 6 of the body member 2, for example by gluing. In the example, the grip has an overall length of

282mm, the body member 2 having a length of 270mm and the end cap 4 having a thickness of 12mm.

The body member 2 includes an upper portion 8 of uniform cross-section, which extends from the upper end 6 of the body member for a length of 195mm, and a lower portion 10 which tapers to a diameter of approximately 15mm at its lower end 11. The cross-section of the upper portion 8 is approximately rectangular, having a width of 42mm and a depth of 28mm, i.e. the cross-section has a width "W" to depth "D" ratio (W : D) of approximately 3 : 2 (see Figure 2). The width to depth ratio is the ratio of the maximum width to the maximum depth of the upper portion 8.

- 10 The front face 14 is slightly convex and the rear face 12 is flat. The radius of curvature of the front face is 57 mm and extends through an arc of 34 degrees. The grip is held with the hands level and the two thumbs side-by-side on the front face 14 of the grip. The slightly convex surface of the front face 14 enables a more natural grip since the golfer's hands are rotated slightly outwards. Alternatively, the front face 14 can be planar, however a planar
- 15 front face 14 strains the thumbs and wrists slightly as the hands are turned inwards thereby providing a less comfortable grip. The rear face 12 is flat since a flat face does not force the hands to turn outwards when the grip is held. Furthermore, having a flat rear face 12 is advantageous since it enables the user to attach the grip to a golf club such that the club face is substantially perpendicular to the front face 14 of the grip. This is achieved by the
- 20 user looking down the rear face 12 of the grip when applied to the shaft and rotating the grip until it is properly aligned with the club face. If the grip is applied to the shaft such that it is rotated relative to the club face by only a few degrees, the golfer will not strike the ball squarely which can make a significant difference for medium and long shots.

The side faces 13a, 13b are flat and are substantially perpendicular to the rear face 12. The
25 four edges formed at the intersections of the front face 14 and the rear face 12 and the side faces 13a, 13b are rounded.

A cylindrical bore 16 having a diameter of 14.5mm extends through the body member 2 to receive the shaft of the golf club. In addition, two parallel smaller secondary bores 18, each having a diameter of 5mm, extend from the upper end of the body member 2 to a
30 depth of 130mm, the secondary bores being provided on either side of the main bore 16.

The end cap 4 is of similar cross-sectional shape to the upper end of the body member 2 and includes on its lower face 20 two cylindrical lugs 22, which are positioned for engagement in the secondary bores 18 of the body member 2.

The length of the grip can be adjusted by cutting off a portion of the grip from the upper 5 end of the body member 2 and then attaching the end cap to the cut end and gluing it in place. Because the secondary bores 18 extend for a considerable depth into the body member 2, the end cap 4 can be correctly positioned by engaging the locating lugs 22 in the secondary bores 18, even if quite a large portion of the grip is removed. If necessary, the secondary bores 18 can extend along substantially the full length of the wide part, or any 10 part thereof.

Since most grips are tapered, if a golfer tries to adjust the grip by removing material from its lower end, this can leave an unsightly step at the point where the shaft enters the grip. Thus the invention provides a more satisfactory method of adjusting the length of the grip than simply removing a portion from the lower end of the grip, or by shortening the length 15 of a club by reducing the length of the shaft.

In use, the grip is held with the hands level and the two thumbs side-by-side on the front face 14 of the grip, with the fingers curling around the rear face 14 or with the finger tips resting thereon. This allows the golfer to adopt a stance with the shoulders completely level and square with the hips and feet, which helps to produce a smooth and accurate 20 stroke. Furthermore, it has been found that the shape of the grip assists the golfer to swing the club more squarely, thereby increasing the likelihood of striking the ball more accurately. With rounded grips, there is a tendency for golfers to swing putters along a shallow arc.

Various modifications of the grip are of course possible that fall within the scope of the 25 invention. For example, the grip may have a width of between 30-60mm, but is preferably between 40-50mm. The width to depth ratio is preferably in the range 1.3 to 2.0 : 1. For example, the width to depth ratio may be in the range 1.4 to 1.8 : 1, and is preferably in the range 1.4 to 1.6 : 1. It has been found that grips having a width to depth ratio in the latter range are more comfortable for golfers. The overall length of the grip can be in the range 30 200-400mm, and is preferably in the range 250-300mm. The upper portion of the grip,

which has a uniform cross-section, may be between 150-300mm in length, and is preferably between 180-250mm in length.

The separate end cap can omit the lugs 22 and the secondary bores 18 can be omitted from the body member 2. When adjusting the length of the grip, the end cap is first removed, the 5 cutting operation performed and the end cap is then reattached to the shortened body member.